

MEMORANDUM TO MEMBERS AND CONSULTANTS OF THE NATIONAL SCIENCE BOARD

**SUBJECT:** Preliminary Report of the August 14, 15, 2002 Meeting

The major actions of the Board at its 369th meeting on August 14, 15, 2002, are summarized for the information of those members absent and as a reminder to those present.

**1. Board Actions**

- a. The Board elected Dr. Anita Jones to serve as a member of the Executive Committee, with a term to expire May 10, 2003.
- b. The Board approved the NSF FY 2004 Budget Request to the Office of Management and Budget (NSB-02-139, Attachment 1).
- c. The Board approved the FY 2004 Budget Request for the NSF Office of Inspector General (NSB-02-135, Attachment 2).
- d. The Board approved the Closed and Open Session minutes of the May 2002 meeting.

**e. Awards**

The Board approved the following awards:

Amount not  
to exceed

**Office of the Director**

Office of Polar Programs

South Pole Observations to Test

Cosmological Models

University of Chicago

NSB-02-112

\$16,577,000

60 months

**Geosciences**

Division of Ocean Sciences

Contract Extension and Phase-out of

Management and Operations of the

Ocean Drilling Program,

Joint Oceanographic Institutions, Inc.

NSB-02-113

\$70,146,000

60 months

**(e. Awards, cont.)**

Amount not  
to exceed

**Mathematical and Physical Sciences**

Division of Astronomical Sciences

Authorization of ALMA (MMA)

Construction Funding

Associated Universities, Inc. (AUI)

\$331,630,000

NSB-02-114

96 months

**2. NSB Committees**

(Committee summaries are provided by executive secretaries.)

The Chairman discharged with thanks the NSB Nominations Committee, Chaired by Dr. Langford, with members Drs. Lubchenco and Savitz, and Executive Officer Mr. Glaser.

**a. Executive Committee**

The Executive Committee discussed recent legislative actions on the FY 2003 budget and related reports and activities. The Chairman announced his intention to address the issue of openness of Board deliberations and has directed the Executive Officer of the Board and the General Counsel to ensure that agenda items are properly allocated between open and closed meetings. The Chair also directed committee chairs to prepare more comprehensive public reports on committee discussions, and to hold public hearings (as has been done in the past) on policy matters of general interest.

**b. Audit & Oversight (A&O)**

**Regular**

The following topics were covered at regular session: the NSF Response to the FY 2001 audit Management Letter, a review of current issues relating to cost sharing, an update on the development of *Guidelines and Procedures for Managing and Overseeing Large Facility Projects*, a brief review of IT Security at NSF, an update on GPRA and an update on Administration and Management Planning. This last discussion included a briefing on the recently started Business Analysis contract. The committee passed a motion reaffirming the importance of cost sharing requirements being tied to “tangible benefits to the scientific enterprise.”

### **c. Programs and Plans (CPP)**

CPP considered four proposed awards. Three awards were recommended for approval to the full Board:

- Atacama Large Millimeter Array Construction Funding. The committee noted its long standing support and prior reviews of the international telescope project;
- Phase-out of the Ocean Drilling Program . The committee noted the outstanding science accomplishments of the Program and commended the phase-out plan; and
- South Pole Observations to Test Cosmological Models. The committee noted that the research project included construction of an 8 meter telescope, building on the success of earlier instruments.

Regarding the proposed award for an Extensible Terascale Facility, the committee requested additional review information and will reconsider it expeditiously.

The committee considered a draft report from its Infrastructure Task Force. Discussion focused on the report's recommendations. The next draft will be shared with the full Board.

The committee heard several reports and information items, including:

- A report on the current status of planning for Major Research Equipment and Facilities, emphasizing the process for setting priorities and planning for the FY 04 budget request.
- Information on a cabled observatory to enables ocean science research and to serve as a test bed for potential future cabled observing systems.
- An update on activities related to the NSB Environmental Report, describing the 10 year agenda being developed by the NSF Advisory Committee on Environmental Research and Education. This report is being broadly vetted with other NSF advisory committees, federal agencies, professional societies, and through opportunities for public comment. .
- An update on the National Consortium on Violence Research. A new award has been made focused on capacity building in the field of research on violence.

CPP agreed that it will consider two policy topics over the next several months: facilities operations support, and the Foundation's experience since the implementation of the Board's 1997 policy on competition, recompetition and renewal of awards.

### **d. CPP Subcommittee on Polar Issues (PI)**

Staff reported on recent contacts with Chinese science agency officials who have expressed interest in cooperation with the US at both poles; on preliminary thinking about a post-doc

program to attract new people into the field; and on the recent success of telemedicine in treating a serious injury during over-winter at South Pole Station. The subcommittee received information about successful efforts at conflict resolution with local officials in Barrow Alaska; a report to the Senate on support of research infrastructure in Barrow; the startup of phase 1 of the IceCube project; evaluation of possibilities of extending research activities in the Antarctic into winter months; and review of a proposal for South Pole Observations to Test Cosmological Models.

**e. CPP Task Force on S&E Infrastructure (INF)**

Dr. Peter Freeman, AD/CISE, reported on the status of the draft report of the NSF Advisory Committee on Cyberinfrastructure. This report provides useful input to the INF report. The task force also heard from David Radzanowski and Sarah Horrigan, Science and Space Branch, Office of Management and Budget, and Michael Holland, Office of Science and Technology Policy. They reviewed the third draft of the INF Report and provided many helpful suggestions.

The task force then discussed the draft report's findings and recommendations. In particular, there was agreement that the report should provide some idea of the priority of the various needs listed under the second recommendation. In addition, it was recommended that the report suggest some criteria and/or decision rules that can be used for assigning budget priority to large infrastructure projects. Finally, there was a discussion of whether or not the draft report should be distributed for public comment, via the Internet. It was decided to continue this discussion at the CPP meeting on the following day.

**f. Education and Human Resources (EHR)**

The EHR Committee meeting was held in two sessions over two days. The first session on Wednesday afternoon began with a report by Dr. Joseph Miller regarding the activities and preliminary recommendations of the Task Force on National Workforce Policies. The Committee discussed the recommendations and provided suggestions for the report. The Committee then was briefed on the educational and diversity activities that are supported in two of the science directorates. Dr. Esin Gulari provided an overview of the activities that are sponsored by the Engineering Directorate and Dr. John Hunt did the same for MPS. The first session ended with a discussion of topics and issues that the EHR Committee wants to take up in the future.

On Thursday morning, the committee meeting heard a report by Dr. Richardson on the plans of the Subcommittee on Science and Engineering Indicators for their next report. Dr. Ramaley provided the members with an update on NSF's plans for the Workforce for the 21<sup>st</sup> Century Priority Area, described NSF's recent interactions with the Department of Education, and spoke about plans for a new multi-agency effort in research on education. Dr. Deborah Crawford gave a status report on the current Math and Science Partnership competition and plans for next year.

#### **g. EHR Subcommittee on Science and Engineering Indicators (SEI)**

The subcommittee preliminarily approved a proposed schedule for subcommittee and full Board review of S&EI 2004. Lynda Carlson and Rolf Lehming, SRS, provided a followup report on a discussion from the May S&EI meeting on the availability and quality of industry data on the environment, reporting that a contractor analysis indicated little usable data. Mr. Lehming recommended that any usable data on the environment be presented as sidebars placed in various chapters. The subcommittee accepted the recommendation, but asked SRS staff to survey a few of the NSB members who work in industry about the collection and quality of data at their firms.

A second staff recommendation also accepted by the subcommittee was to discontinue the separate IT chapter and place updated IT data in various chapters. The subcommittee accepted the recommendation providing all IT sections would be listed in the index.

Committee members expressed a preference for assembling indicators of state-level S&E into a new, separate chapter. Dr. Carlson suggested alternatively to either assemble state indicators data on a separate CD or place a special state S&E indicators report on the SRS website, or both. Dr. Tapia proposed that the subcommittee postpone this decision until he conferred with Dr. Richardson. The subcommittee's decision on the treatment of state indicators will be conveyed to Dr. Carlson by Thursday afternoon, August 15.

The possibility of electronic review of draft chapters for Indicators 2004 was discussed. SRS is working with the NSB Office on electronic transmission of material to Board members. If that is not possible, Dr. Carlson said draft chapters might be delivered to subcommittee members on a CD.

#### **h. EHR Task Force on National Workforce Policies for S&E (NWP)**

The Task Force focused discussion on a new draft framework for its report. Members examined the primary data and findings that underpin the national policy imperative identified by the Task Force. A number of possible recommendations for policy action were discussed. A literature review of studies relevant to national and international workforce policy was provided to the Task Force by a contractor, SRI International. The Task Force will be shaping a report in the next few months, with the goal of review by the Board at its November meeting.

#### **i. Committee on Strategy and Budget (CSB)**

The committee discussed the recent congressional actions reducing the Major Research Equipment and Facilities Account from the Foundation's FY2003 Congressional Budget request and asking the National Academy of Sciences to evaluate NSF's policies and procedures for prioritizing initiation of large new facilities projects. The committee agreed that a working group of CSB and CPP members should work with NSF to determine whether changes to existing NSB guidance on priority setting might be appropriate.

Dr. Colwell briefed the committee on the plans to revise the Foundation's GPRA Strategic Plan and the role that the NSB might take in the process.

The Director presented NSF's proposed FY2004 Budget request to OMB, emphasizing the request's connection to NSF's Strategic Plan, the Administration's national priorities and the strategic initiatives that the CSB has focused on during the past year. CSB passed a resolution recommending approval of the FY2004 budget, an action later taken by the full Board.

Dr. Margaret Leinen briefed the committee on the Foundation's progress in securing increased funding for environmental research, pursuant to recommendations contained in the NSB's February 2000 report "Environmental Science & Engineering in the 21<sup>st</sup> Century."

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Gerard Glaser  
Executive Officer

Attachment 1: NSB-02-139 NSF FY 2004 Budget Resolution  
Attachment 2: NSB-02-135 OIG FY 2004 Budget Resolution

August 15, 2002

RESOLUTION

NATIONAL SCIENCE BOARD

NATIONAL SCIENCE FOUNDATION  
FISCAL YEAR 2004 BUDGET SUBMISSION

The Committee on Strategy and Budget recommends that the National Science Board approve NSF's Fiscal Year 2004 budget request in accordance with the following resolution:

RESOLVED, that the National Science Board approves the proposed National Science Foundation Fiscal Year 2004 budget request for transmittal to the Office of Management and Budget as recommended by the Director and the Committee on Strategy and Budget. Further, the Board authorizes the Director to submit such a request in accord with the proposed Budget by Account and Budget by Strategic Goals tables.

Maxine Savitz  
Chair, Committee on Strategy and Budget

August 15, 2002

RESOLUTION

NATIONAL SCIENCE BOARD

OFFICE OF THE INSPECTOR GENERAL  
NATIONAL SCIENCE FOUNDATION  
FISCAL YEAR 2004 BUDGET SUBMISSION

RESOLVED, that the National Science Board approves the proposed budget request for the National Science Foundation Office of the Inspector General for Fiscal Year 2004 for transmittal to the Office of Management and Budget, as recommended by the Audit and Oversight Committee, consistent with the proposal of the Office of the Inspector General (NSB/A&O-02-21).

Mark S. Wrighton  
Chair, Committee on Audit and Oversight